

Welcome

To The

Land Processes DAAC Suite of On-line Workshops

Introduction to the Earth Observing System and the LP DAAC

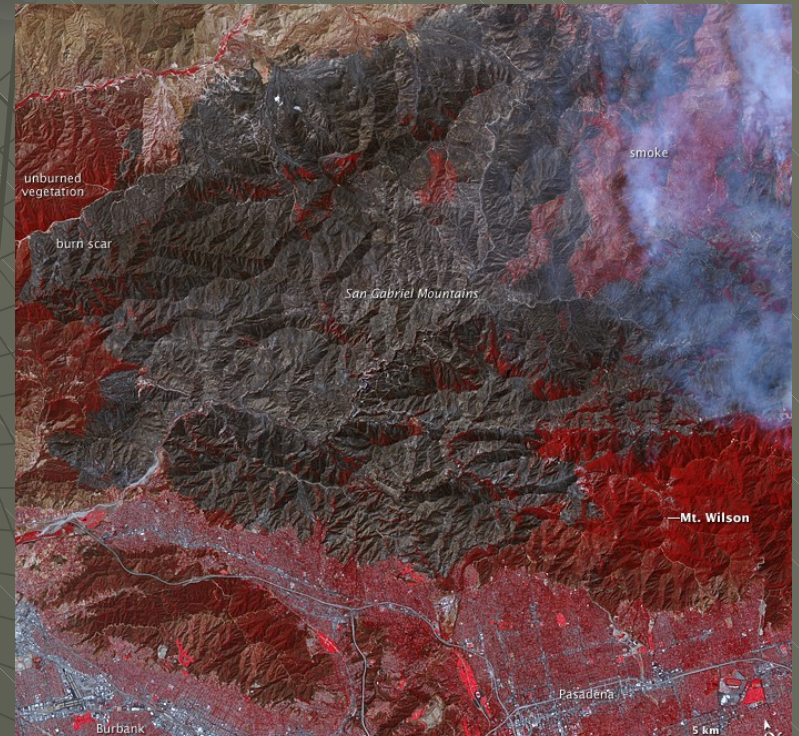
Welcome to the Introductory LP DAAC On-Line Workshop

- ◆ The following topics will be presented:
 - What is the mission of the NASA Earth Observing System (EOS)?
 - How does the LP DAAC fit into NASA EOS?
 - Data archived and distributed by the LP DAAC
 - Information on the LP DAAC Web site
 - Where to order LP DAAC data



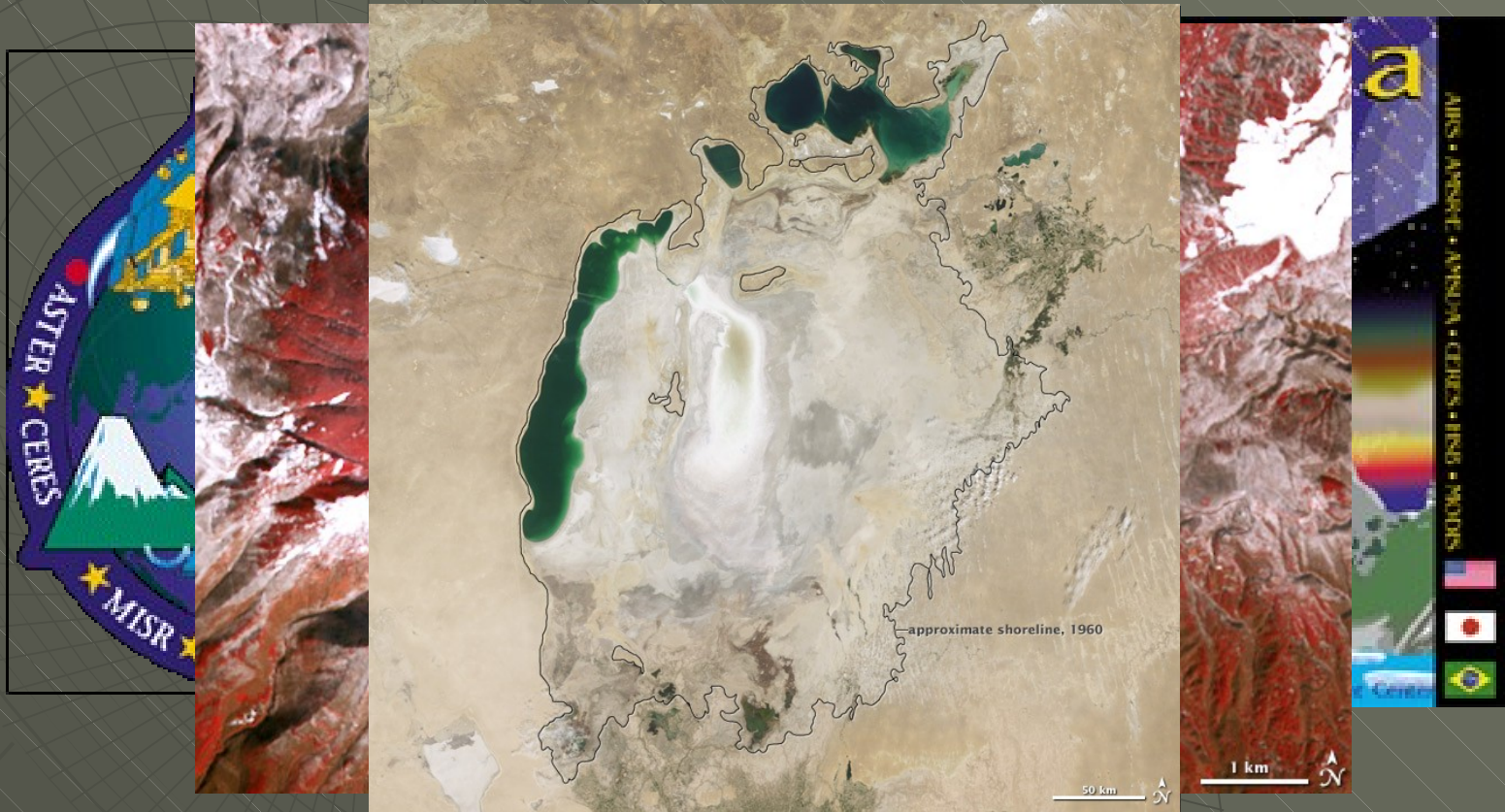
- ◆ EOS is a major component of NASA's Earth-Sun System Missions
- ◆ Left: MODIS image of fires in Indonesian Borneo acquired on September 13, 2009.

- ◆ Represents NASA's contribution to US Global Change Research Program
- ◆ Right: ASTER image of the Los Angeles Station fire burn scar acquired on September 6, 2009.



What influences major climate change?

MODIS image of the Aral Sea
ASTER image of volcanic activity of Mt. Asama, Japan
Late August 2009
February 2009





Terra Satellite

- ◆ LAUNCH: December 18, 1999 from Vandenberg AFB
- ◆ ORBIT: Sun-synchronous near-polar 705 km (438 miles)
- ◆ EQUATOR CROSSING: 10:30 a.m. descending
- ◆ DESIGN LIFE: 6 years





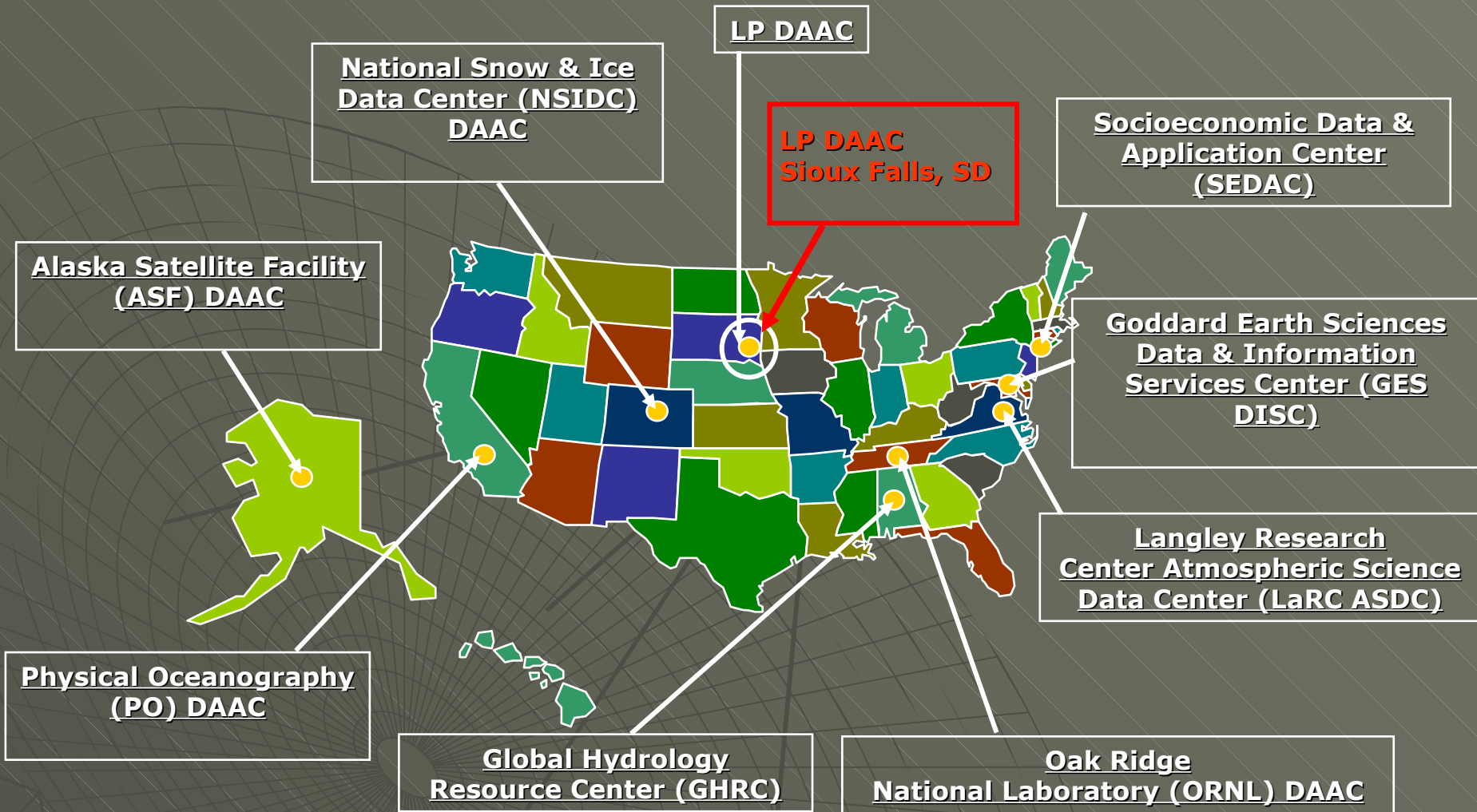
Aqua Satellite

- ◆ LAUNCH: May 4, 2002 from Vandenberg AFB
- ◆ ORBIT: Sun-synchronous near-polar 705 km (438 miles)
- ◆ EQUATOR CROSSING: 10:30 a.m. ascending
- ◆ DESIGN LIFE: 6 years



How is EOS data managed?

- ◆ The EOS Data & Information System (EOSDIS) was established to:
 - Perform mission operations for instrument & spacecraft control
 - Capture and process telemetry data
 - Generate higher level standard data products
 - Archive and distribute data products





The LP DAAC is located at USGS Earth Resources Observation and Science (EROS) Center near Sioux Falls, SD.



LP DAAC Web Site

<https://lpdaac.usgs.gov>

**USGS**
science for a changing world

**LP DAAC**
LAND PROCESSES DISTRIBUTED ACTIVE ARCHIVE CENTER

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ATTENTION: Welcome to the LP DAAC Website!

USGS NEWS   

Welcome

Products
Click the world map images available from the two sensors, MODIS and AIRS.

Get Data
Click any of the links needed to acquire the images.

Tools
Download the data you wish to use.

User Community
A place to share and discuss data.

Customer Service
Have a question? Our staff is happy to help.

News

08/03/2009
[New MODIS 500 meter Land-Water Mask](#)

07/30/2009
[LP DAAC GOES-B Distribution Milestone / Re-distribution Update](#)

07/29/2009
[The LP DAAC is discontinuing ASTER Satellite Process](#)

07/01/2009
[Change in Status Alert for the ASTER SWIR dataset](#)

 [Read more news.](#)

Data in Action

Ash Eruptions from Sarychev Peak, Kuril Islands

08/18/2008



At the northwestern end of Ostrov Iturup (Iturup Island), Sarychev Peak ranks among the most active volcanoes in the Kuril (or Kurile) Islands, which stretch between Hokkaido, Japan, and Russia's Kamchatka Peninsula. On June 12, 2008, Sarychev Peak began a series of eruptions that spread ash far and wide across the northwestern Pacific.

 [Read original article.](#)

 [Read more articles.](#)

NASA and USGS Partnership

The Land Processes Distributed Active Archive Center (LP DAAC) is one of several discipline-specific data centers within the NASA Earth Observing System Data and Information System (EOSDIS). The LP DAAC is located at the USGS Earth Resources Observation and Science (EROS) Center in Sioux Falls, South Dakota.

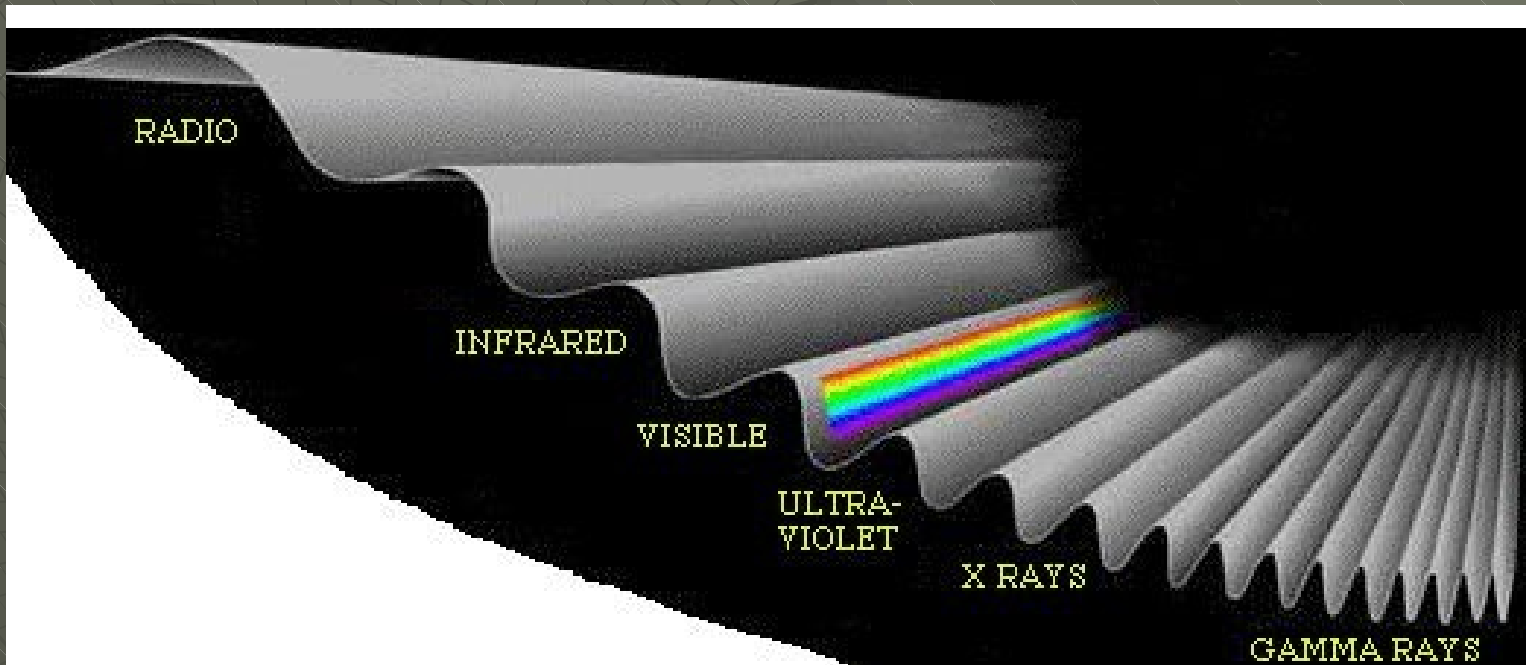
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Accessibility | FOIA | Privacy | Policies and Notices

Remote Sensing Capabilities

- ◆ The Electromagnetic Spectrum



What type of data products does the LP DAAC provide?

- ◆ The LP DAAC archives, produces, and distributes ASTER and MODIS data.
 - Advanced Spaceborne Thermal Emission and Reflective Radiometer (ASTER)
 - MODerate resolution Imaging Spectroradiometer (MODIS)
- ◆ Data are available in the Hierarchical Data Format – Earth Observing System (HDF-EOS) format.

ASTER and MODIS Data



MODIS image of fires near Athens, Greece

- ◆ Acquired August 22, 2009
- ◆ Smoke from wildfires can be seen in image center



ASTER image of Mount Redoubt, Alaska

- ◆ Acquired May 5, 2009
- ◆ A steam plume can be seen in image center

How do I order ASTER or MODIS data from the LP DAAC?

- ◆ Visit the “Get Data” area of the LP DAAC Web site.
- ◆ Warehouse Inventory Search Tool (WIST)
<https://wist.echo.nasa.gov/~wist/api/imswelcome/index.html>
 - Delivers all EOS data sets and meets all user needs
 - User Logins to allow saved searches and preferences
- ◆ Global Visualization Viewer (GloVis) <http://glovis.usgs.gov/>
 - Browse-based tool for ASTER L1A and selected MODIS data sets
 - Point and click client
- ◆ Data Pool https://lpdaac.usgs.gov/lpdaac/get_data/data_pool
 - ASTER L1B over U.S. and selected MODIS data sets
 - Data cached (58 TB) for immediate download
 - Search capabilities exist, along with simple folder-based directory structure
- ◆ MRTWeb https://lpdaac.usgs.gov/lpdaac/get_data/mrtweb
 - Combines the capabilities of GloVis and the MODIS Reprojection Tool
 - Access to selected MODIS data sets

Introduction to the Earth Observing System and LP DAAC

- ◆ Please continue to learn additional information on LP DAAC products by visiting the following On-Line Workshops.
 - LP DAAC Introduction to ASTER Data Workshop
 - LP DAAC Introduction to MODIS Data Workshop

Acknowledgements

- ◆ Earth Observing System (EOS)
- ◆ Earth Remote Science Data Analysis Center (ERSDAC)
- ◆ EOS Data & Information System (ESODIS)
- ◆ EOS TERRA Satellite
- ◆ Japanese Ministry of Economy, Trade and Industry (METI)
- ◆ Land Processes Distributed Active Archive Center (LP DAAC)
- ◆ NASA Earth Observatory
- ◆ NASA Goddard Space Flight Center (GSFC)
- ◆ NASA Jet Propulsion Laboratory (JPL)
- ◆ National Aeronautics and Space Administration (NASA)
- ◆ United States Geological Survey (USGS)
- ◆ US Global Change Research Program
- ◆ USGS Global Visualization Viewer (GloVis)
- ◆ Warehouse Inventory Search Tool (WIST)